

## In the Claims

Please rewrite Claim 1 as follows:

Q2 Sub B1  
com1

1 (Amended) A manual input device comprising:  
a knob;  
a feeling providing device which has at least two kinds of feeling patterns; and  
an actuator which activates the feeling providing device and changes an operation feeling given to the knob.

Please rewrite Claim 5 as follows:

5. (Amended) The manual input device according to Claim 1,  
wherein the feeling providing device comprises one of a disc and cylinder which bears plural feeling patterns (rows) and is fixed to a control shaft to be manipulated by the knob; and one of a ball and pin elastically forced to contact the one of the disc and cylinder, and  
wherein the actuator linearly reciprocates the one of the ball and pin in a direction where the plural feeling patterns are arranged.

Please rewrite Claim 6 as follows:

Q3 com4

6. (Amended) The manual input device according to Claim 1,  
wherein the feeling providing device comprises one of a disc and cylinder which has a single feeling pattern (row) and is fixed to a control shaft to be manipulated by the knob; and one of plural balls and pins elastically forced to contact the one of the disc and cylinder, and  
wherein the actuator linearly reciprocates a selected one of the one of the plural balls and pins in a direction where the selected one of the one of the plural balls and pins selectively engages with the feeling pattern.

Please rewrite Claim 7 as follows:

7. (Amended) The manual input device according to Claim 1,  
wherein the feeling providing device comprises a rotary polyhedron which bears plural feeling patterns (rows) arranged in parallel along an axial direction of an outer surface, and

wherein the actuator reciprocally rotates the rotary polyhedron around an axis of the rotary polyhedron, with one end of a control shaft to be manipulated by the knob being in contact with the outer surface of the rotary polyhedron bearing the feeling patterns.

Please rewrite Claim 8 as follows:

8. (Amended) A manual input device comprising:

a knob;

feeling providing device which provides the knob with an operation

feeling;

an actuator which activates the feeling providing device;

a detector which detects an operating condition of the knob; and

an input/output section which exchanges signals with an external

device controlled by the knob,

wherein the actuator is controlled according to a control signal generated based on an external signal from an external detector connected at least with the external device.

Please rewrite Claim 12 as follows:

12. (Amended) The manual input device according to Claim 8,

wherein the feeling providing device comprises one of a disc and cylinder which bears plural feeling patterns (rows) and is fixed to a control shaft to be manipulated by the knob; and one of a ball and pin elastically forced to contact the one of the disc and cylinder, and

wherein the actuator linearly reciprocates the one of the ball and pin in a direction where the plural feeling patterns are arranged.

Please rewrite Claim 13 as follows:

13. (Amended) The manual input device according to Claim 8,

wherein the feeling providing device comprises one of a disc and cylinder which bears a single feeling pattern (row) and is fixed to a control shaft to be manipulated by the knob; and one of plural balls and pins elastically forced to contact the one of the disc and cylinder, and

wherein the actuator linearly reciprocates a selected one of the one of the plural balls and pins in a direction where the selected one of the one of the plural balls and pins selectively engages with the feeling pattern.

Please rewrite Claim 14 as follows:

14. (Amended) The manual input device according to Claim 8,  
wherein the feeling providing device comprises a rotary polyhedron which bears plural feeling patterns (rows) arranged in parallel along an axial direction of an outer surface, and  
wherein the actuator reciprocally rotates the rotary polyhedron around an axis of the rotary polyhedron, with one end of a control shaft to be manipulated by the knob being in contact with the outer surface of the rotary polyhedron bearing the feeling patterns.

Please rewrite Claim 15 as follows:

15. (Amended) A manual input device comprising:  
a knob;  
a feeling providing device which provides the knob with an operation feeling;  
an actuator which activates the feeling providing device;  
a control section for the actuator;  
a detector which detects an operating condition of the knob; and  
an input/output section which exchanges signals with an external device controlled by the knob,  
wherein an external signal from an external detector connected at least with the external device is inputted into the control section through the input/output section to generate a control signal for the actuator to match at least the external signal, and wherein the actuator is controlled according to the control signal.

Please rewrite Claim 16 as follows:

16. (Amended) A manual input device comprising:  
a knob;  
a feeling providing device which provides the knob with an operation feeling;  
an actuator which activates the feeling providing device;

a control section for the actuator;  
a detector which detects an operating condition of the knob; and  
an input/output section which exchanges signals with an external  
device controlled by the knob,

wherein both a detection signal at least from the detector and an  
external signal from an external detector connected with the external device are  
inputted into the external device to generate control information for the actuator to  
match the detection signal and the external signal, wherein the control information is  
picked up by the control section through the input/output section to generate a  
control signal for the actuator to match the control information, and wherein the  
actuator is controlled according to the control signal.

Please rewrite Claim 17 as follows:

17. (Amended) A manual input device comprising:

a knob;  
a feeling providing device which provides the knob with an operation  
feeling;

an actuator which activates the feeling providing device;  
a detector which detects an operating condition of the knob; and  
an input/output section which exchanges signals with an external  
device controlled by the knob,  
wherein both a detection signal at least from the detector and an  
external signal from an external detector connected with the external device are  
inputted into the external device to generate a control signal for the actuator to match  
the detection signal and the external signal, and wherein the actuator is controlled  
according to the control signal.

Please rewrite Claim 18 as follows:

18. (Amended) A car-mounted apparatus controller comprising:

a function selection switch to select one function among various  
functions to be controlled; and  
a manual input device to control the function selected by the function  
selection switch,  
the manual input device comprising:

a knob;  
a feeling providing device having at least two kinds of feeling patterns;  
and  
an actuator to activate the feeling providing device and changing an operation feeling given to the knob.

Please rewrite Claim 19 as follows:

19. (Amended) A car-mounted apparatus controller comprising:

an electric apparatus selection switch to select an electric apparatus to be controlled;

a function selection switch to select one of various functions of the electric apparatus selected by the apparatus selection switch; and

a manual input device to control a function selected by the function selection switch,

the manual input device comprising:

a knob;

a feeling providing device to provide the knob with an operation feeling;

an actuator to activate the feeling providing device;

a detector to detect an operating condition of the knob; and

an input/output section which exchanges signals with an external device controlled by the knob,

wherein the actuator is controlled according to a control signal generated based on both a detection signal at least from the detector and an external signal from an external detector connected with the external device.

## In the Abstract of the Disclosure

Please rewrite the Abstract of the Disclosure as follows:

### (Amended) ABSTRACT OF THE DISCLOSURE

A changeable operation feeling (tactile sensation) is provided for a user manipulating the knob of manual input device. The manual input device includes a feeling providing device which has plural discs fixed to a control shaft, bearing feeling patterns on their circumferential surfaces and a ball holder which works in conjunction with the discs to provide an operation feeling to the knob. An actuator is driven to move up or down the ball holder to select the feeling pattern to be